Custom Heraldry Shield Shader

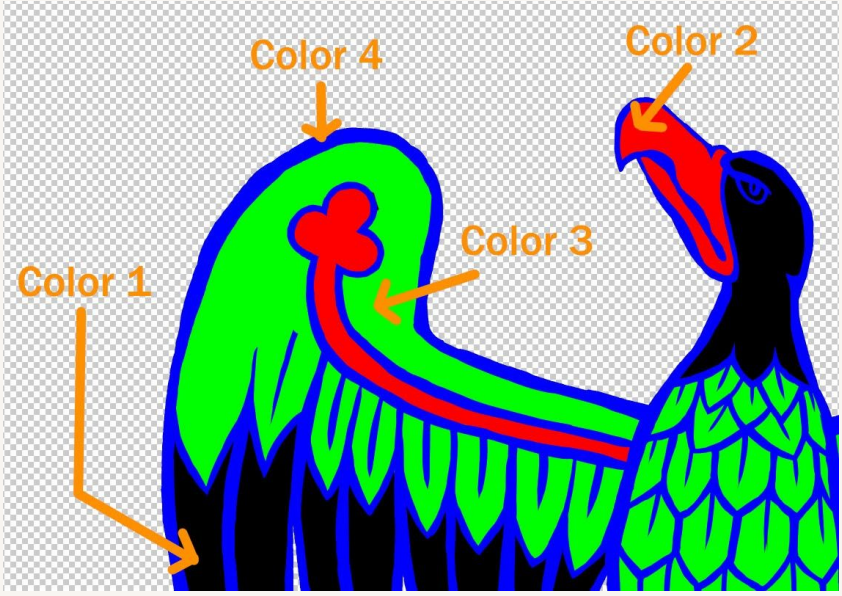
Properties breakdown

Albedo, Metallic, Normal and Occlusion work in the same exact way as a regular standard shader.

Decal Mask - a mask texture for UV3 channel of the mesh used to mask out the area used by the decal layers
Decal Background Color - main color of the area masked out by the Decal Mask
Decal Background Roughness - roughness intensity for the area masked out by Decal Mask

The shader supports 4 layers for decals and all layer properties follow the same structure:

Layer Decal Mask - an RGBA decal texture from the Shield_Decals folder (more about them down below)
Layer Color 1 - sets the color of the Alpha channel of decal texture
Layer Color 2 - sets the color of the Red channel of decal texture
Layer Color 3 - sets the color of the Green channel of decal texture
Layer Color 4 - sets the color of the Blue channel of decal texture

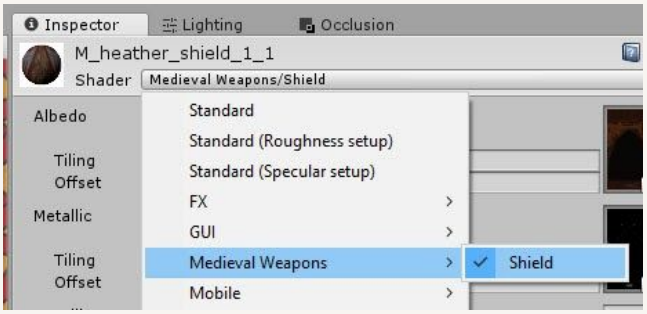


Layer Size - scales the decal texture up or down, with the pivot point being center of UV3 channel
Layer Offset - **X** offsets the decal on horizontal axis, **Y** offsets the decal on vertical axis, **Z** and **W** are unused

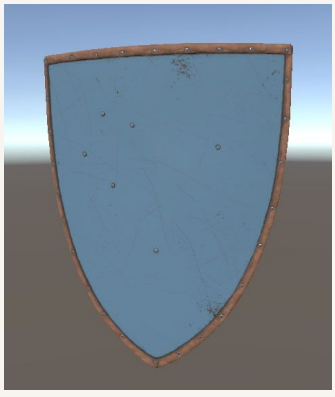
Shield decals
If you would like to paint your own shield decal, in order to take advantage of customizable colors, you need to use specific colors. 0, 0, 0 (in RGB) for Color 1; 255, 0, 0 for Color 2; 0, 255, 0 for Color 3 and 0, 0, 255 for Color 4 . If you work in Photoshop, it is a good idea to paint each channel on separate layers.

Creating your first shield material

Let's create your own shield material!
We will use Heather shield model for this example. Drag out **PREF_heather_shield_1** into the scene and create a new material using **Medieval Weapons/Shield** shader.



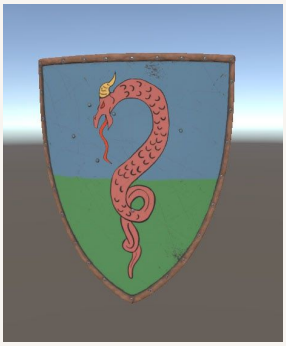
Then apply the albedo, normal, metallic and AO textures just like you'd do in a standard material and set the Metallic and Smoothness strength to 1.
Now you can assign the **TX_heather_shield_mask** texture to **Decal Mask** slot, which will determine where our decals and colors will be visible. You will notice that where the shield had previously a dark brown color there is now a white coat of "paint"! You can change it from white to any color you want with the **Decal Background Color** property. Let's change it to **R: 68, G: 97, B: 118**. Here is how our shield should look like now:



Now let's add a first decal. Let's use **decal_shape_13**. Find it in **Shield_Decals** folder and drag it to **Layer 1 Decal Mask** property of your material. You will notice that half of the shield is now bright blue color, that is the area affected by this particular decal. This texture also supports just one decal color and we can control it with **Layer 1 Color 1**. Let's change the color to **R: 59, G: 106, B: 61.**

Now let's add some figure to our shield in **Layer 2 Decal Mask.** Let's use **decal_figure_13.** This decal supports all 4 colors, let's change them to:
Color 1 - 0, 0, 0
Color 2 - 149, 78, 71
Color 3 - 176, 47, 0
Color 4 - 180, 141, 72

This is what the shield should look like now.



I think it would look much cooler if we zoomed in on the serpent's head more, to make it look as if it was coming out from the bottom of the shield, so let's du just that! We can achieve it with Layer Size and Layer Offset properties.

Let's lower the **Layer 2 Size** to **0.53** value and change the **Y** value of **Layer 2 Offset** to **0.69**.
And there we have it!